

CLAIMS

What is claimed is:

1. A method of treating a fibrosis-related pathology in a subject which comprises administering
5 to the subject a therapeutically effective amount of a pharmaceutical composition comprising a Phospholipase D inhibitor so as to thereby treat the subject.
2. The method of claim 1 wherein the pharmaceutical composition comprises an oligoribonucleotide or oligonucleotide which down-regulates the expression of gene Phospholipase D by at least 50% as compared to a control.
- 10 3. The method of claim 1 wherein Phospholipase D comprises any one of PLD1, PLD2 and PLD3.
4. The method of claim 1 wherein the Phospholipase D inhibitor is an antisense oligonucleotide.
5. The method of claim 1 wherein the Phospholipase D inhibitor is a Phospholipase D siRNA.
6. The method of claim 1 wherein the Phospholipase D inhibitor is an expression vector
15 comprising a nucleic acid molecule encoding Phospholipase D siRNA.
7. The method of claim 1 wherein the Phospholipase D inhibitor is an antibody which binds specifically to Phospholipase D polypeptide.
8. The method of claim 1 wherein the fibrosis-related pathology is chronic renal insufficiency, chronic renal insufficiency, nephropathy, or kidney fibrosis.
- 20 9. The method of claim 1 wherein the fibrosis-related pathology is ocular scarring or cataract.
10. Use of a compound which inhibits the activity of Phospholipase D in the preparation of a medicament for therapy of fibrosis.
11. The use of claim 10 wherein the compound comprises an oligoribonucleotide or oligonucleotide which down-regulates the expression of gene Phospholipase D by at least
25 50% as compared to a control.
12. The use of claim 10 wherein Phospholipase D comprises any one of PLD1, PLD2 and PLD3.

13. The use of claim 10 wherein the compound is an antisense oligonucleotide.
14. The use of claim 10 wherein the compound is a Phospholipase D siRNA .
15. The use of claim 10 wherein the compound is an expression vector comprising a nucleic acid molecule encoding Phospholipase D siRNA.
- 5 16. The use of claim 10 wherein the compound is an antibody which binds specifically to Phospholipase D polypeptide
17. The use of claim 10 wherein the fibrosis-related pathology is chronic renal insufficiency, chronic renal insufficiency, nephropathy, or kidney fibrosis.
18. The use of claim 10 wherein the fibrosis-related pathology is ocular scarring or cataract.
- 10 19. A pharmaceutical composition for the treatment of fibrosis comprising as an active ingredient a Phospholipase D inhibitor together with a pharmaceutically acceptable carrier.
20. The pharmaceutical composition of claim 19 wherein Phospholipase D comprises any one of PLD1, PLD2 and PLD3.
- 15 21. The pharmaceutical composition of claim 19 wherein the Phospholipase D inhibitor is an oligoribonucleotide or oligonucleotide which down-regulates the expression of gene Phospholipase D by at least 50% as compared to a control.
22. The pharmaceutical composition of claim 19 wherein the Phospholipase D inhibitor is an antisense oligonucleotide.
- 20 23. The pharmaceutical composition of claim 19 wherein the Phospholipase D inhibitor is a Phospholipase D siRNA.
24. The pharmaceutical composition of claim 19 wherein the Phospholipase D inhibitor is an expression vector comprising a nucleic acid molecule encoding Phospholipase D siRNA.
25. The pharmaceutical composition of claim 19 wherein the Phospholipase D inhibitor is an antibody which binds specifically to Phospholipase D polypeptide.
- 25 26. The pharmaceutical composition of claim 19 wherein the fibrosis-related pathology is chronic renal insufficiency, chronic renal insufficiency, nephropathy, or kidney fibrosis.

27. The pharmaceutical composition of claim 19 wherein the fibrosis-related pathology is ocular scarring or cataract.
28. A process of preparing a pharmaceutical composition which comprises:
- 5 (i) obtaining a compound that inhibits the activity of a human Phospholipase D polypeptide; and
- (ii) admixing said compound with a carrier.
29. The process of claim 28, wherein the carrier is a pharmaceutically effective carrier.
30. The process of claim 28, wherein the compound admixed with the carrier is present in a pharmaceutically effective amount.